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Information Literacy Skills, Alternative Format Availability and Information Sources Utilization by Visually Impaired Secondary School Students in South-West, Nigeria

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ABSTRACT

Provision and utilization information resources of various types are important in every educational setting to sustain learning activities. The study investigated factors affecting information resources utilization such as information literacy skills and availability of alternative format by visually impaired students in South-West. Descriptive survey design was adopted and the study population consisted of 164 visually impaired students in eight secondary schools selected for the study. Total enumeration sampling technique was adopted for this study. The questionnaire tagged 'Visually Impaired Persons Questionnaire (VIPQ)' was the instrument used for data collection. Data was analyzed using descriptive statistics for the four research questions and five research hypotheses were tested using Pearson product moment correlation and multiple regressions, respectively. The questionnaire was pre-tested and reliability coefficient of 0.71, 0.75 and 0.81 was found for information literacy skills of the visually impaired, alternative formats availability and utilization of information resources, respectively. Braille books [84 (52.2%)] and large print books/serial [69 (43.3%)] were the readily available alternative format of information to students with visual impairment. Books [116 (73%)] and internet sources [62 (39.0%)] constitute the most frequently used information resources. The result showed relationship that information literacy skills of persons with visual impairment have significant relationship with information resources utilization in the selected libraries ($r = 0.248^{**}$; $p < 0.05$); alternative format availability has relationship with the with information resources utilization ($r = 0.068$; $p < 0.01$). The study recommended among others, provision of information resources in alternative formats for persons with visual impairment in school libraries coupled with incorporation of information literacy skills into their curriculum for the visually impaired students so as to ensure long-life learning and utilization of information resources.

Keywords: Information literacy skills, alternative format, information resources, utilization, visually impaired.

Introduction

Information plays an indispensable role in the survival of an individual in the society irrespective of status. In that regards, equality in information sources provision is required to meet the needs of the visually impaired users of information since they constitute an integral part of every society. Visual Impaired refers to someone who is blind or partially sighted (NHS, 2006). According to Kirk, Gallagher & Anastasiow (2006), visual impairment is regarded as a disability that falls along a continuum ranging from near normal vision to profound visual impairments (blindness). Obani (2002) defines visual impairment as a collective term describing an aggregation of various forms and varying degrees of visual handicaps, visual dysfunction and vision loss, which range from slight visual and refractive errors, defect in colour blindness, partial sightedness, and low vision to blindness. The Royal National Institute for the Blind (2002) describes persons with visual impairment as people with irretrievable loss of sight. Arditi and Rosenthal (1998) added that persons with visual impairment include persons with partial sightedness, low vision and total blindness.

The World Health Organization WHO (2009) estimates that there are 314 million people worldwide who are visually impaired. Of these, 45 million are blind, of whom 90% live in low-income countries. These figures were justified by Veal & Maj, (2010) who also points out that "globally there are over 314 million visually impaired people: 45 million of them are totally blind". Visual impairment is a worldwide disability problem, which has been seen as a "global public health problem". Various researchers in Nigeria had reported blindness prevalence rates of between 0.9 and 1.3% (Adeoye, 1996; Gilbert, 2001; Gilbert & Foster, 2001; Rabi, 2001; Farber, 2003) in different regions of the country.

The students with visual impairment are characterized with inability to use traditional print materials and as such they are forced to locate alternative means of accessing academic information. A study on the use of alternative formats by Canadian college students with print disabilities (Anne, 2000) revealed that 56% of the students use tape recording frequently, 31% use large prints and 19% use braille frequently. Taped books were the most popular for students. There has always been a small but important demand for braille by borrower or buyers from other agencies (National Library of Canada, 1996). Gatz (2003) envisaged that majority of users of talking books, are visually impaired people who generally have no other way to read unless they read braille; even though not many people do read braille. Adetoro (2009) posits that persons with visual impairment just like the sighted need to acquire information, but such information will only be useful when they come in alternative formats or reading materials that have been converted into useful formats for those with print disabilities. Nielsen and Irvall (2005) declare that students with disabilities must have equitable access to the library and its facilities. To this end, Suamure and Given (2004) were of the view that blind and partially sighted post-secondary students must access the materials that they need for their studies in the context of their disability. Pansida (1991) in his survey on the condition in Thailand reported that most textbooks in braille and other formats are produced for primary and secondary schools according to the curriculum of the Ministry of Education.

Libraries and librarians provide access to essential information that people need to participate in the emerging information society. Therefore, they have a moral obligation to make information available to all categories of users regardless of their gender, age, race, political affiliation or disability. Such inclusive, non discriminatory service however still remains the ideal rather than the norm as some people remain underserved in terms of access to information (Babalola and Haliso, 2011). It is generally believed that because persons with

visual impairment have the same human composition as sighted people; their reading interest and information needs are likely to be similar (Adetoro, 2009). To this end, Owen (2000) submitted that persons with visual impairment have the same library and information needs as everyone else except that they may require some adaptation. In virtually all countries, it has been realised that persons with visual impairment (PVI) need information as much as sighted persons (Adetoro, 2009). Person with visual impairment need information to function effectively *as* human beings and this is why the advocacy for equal access to information for persons with visual impairment has been on the ascendancy in recent time (Adetoro, 2009).

American Library Association ALA (2008) conceptualised information literacy skills as a set of abilities that enable individuals to “recognise when information is needed and have the ability to locate evaluate and use effectively the needed information. According to them an information literate individual is able to: determine the information needed; access the needed information effectively and efficiently; evaluate information and its sources critically; incorporate selected information into ones knowledge base and use information effectively to accomplish a special purpose (ALA, 2008).

Wong (2008) in a study on improving literacy of the visually impaired in Singapore reported that the issue of literacy concerning the visually impaired requires additional consideration given that the nature of visual impairment impacts the medium of reading and writing resulting necessary medications in order to access information. Wong added that where literacy for the sighted person is taken to mean ability to read and write via print, what constitutes reading and writing for the visually impaired involves multiple modalities.

Saumure & Given, (2004) reported that since the visually impaired persons cannot use the traditional print materials and must use alternative means of accessing academic information (Braille, audio books and electronic documents) which in most cases are not readily available, the blind and visually impaired students can be regarded as marginalized in their information seeking. The empirical studies of information needs, information behaviour and library use of blind and visually impaired persons (and students in particular) are still very rare (Williamson, Schauder & Bow, 2000; Davies, 2007). Saumure & Given, (2004) examined the information behaviour of visually impaired students in Canada, with special emphasis on the adaptive technology (2004). The use of assistive technology by visually impaired students in their academic work and information seeking has been studied by several authors who found out that technology plays an important role in the information behaviour of visually impaired persons (Corn & Wall, 2002; Abner & Lahm, 2002).

In a study on exploration of academic information seeking and library use of the blind and visually impaired students in Croatia, Sehic and Tanackovic (2013) envisaged that although development of adaptive technology and the rise of information in electronic format (and Internet in particular) has largely improved their independence and increased the opportunities of the visually impaired persons to locate and use information, more studies are needed to gain deeper understanding of how students with visual impairment locate and access academic information. The role of information literacy skills in the utilisation of information resources of any formats by information users could not be overemphasised.

The peculiar nature of the visually impaired persons deprived them opportunities of utilizing the conventional information resources except the materials are transcribed into alternative formats, Adetoro (2009) was of the view that availability of information materials for the use of persons with visual impairment in many countries is premised on equal access with the sighted, though what is available world over is a far cry from the desired. Brazier (2003) and

Brunson (2005) have evidence that availability of information materials for use of visually impaired in advanced countries is grossly inadequate.

Information forms the basic requirement for every human activity and it is as important as food, air and water. Information in itself has no value, but its value lies in its communication and use. Sasikala & Dhanraju (2011) were of the view that information literacy is a necessary skill that is utilitarian in every aspect of a person's life. For students, information literacy skills would lead to independent and student-centred learning, rather than dependence on the teacher to provide answers to questions or problems that they encounter. Jayaprakash and Gupta, (2005) defined Information Literacy by characterizing information literate person: one who has the analytical and critical skills to formulate research questions and evaluate results and the skills to search for and access a variety of information types in order to meet his or her information needs" Dhiman (2006) reiterates that the need of information literacy may be essential due to the following reasons: rapid increase in the stream of information due to information revolution; advent of information and communication technologies; vast variety of information sources; changing shape of libraries; wide dispersal of information; increase in number of users; and research on complex and interdisciplinary topics.

Information sources play significant roles in meeting various needs of persons with visual impairment and information literacy skills could be an instrument that will enhance maximum utilisation of the information sources provided in alternative format to the visually impaired persons. From the foregoing, it is deducible that the visually impaired persons are also eligible to possess certain information literacy skills in order to be fully integrated into the society and maximize their potentials in utilising varying degrees of information sources. The major thrust of this research, therefore, is to determine the information literacy skills, availability of alternative format of information and utilization of information sources by visually impaired students in South-western, Nigeria.

1.2 Statement of the problem

The visually impaired persons in secondary schools in South-West, Nigeria are potential users of information resources expected to be provided by libraries across various disciplines. It has been observed in literature that there is acute shortage of information materials available to persons with visual impairment in institutions catering for the needs of the visually impaired persons in Nigeria. This shortage could be as a result of the fact that the few information materials being converted into alternative format for this unique group is relatively low to what is expected to meet their needs; that is, the ratio of converted materials into alternative format for the visually persons to conventional resources available for the sighted is relatively low. Literature has shown that persons with visual impairment have no control on what is made available to them by the information providers as they are left with only what is made available in alternative format.

The low level of information resources utilisation by visually impaired persons could not be unconnected to insufficient provision of alternative format of information sources by libraries providing information for persons with visual impairment. However, provision of information sources in alternative format (such as Braille, large print books are generally inadequate; while digital talking books; DAISY reading software, tactile picture books and internet) alone might not ensure effective utilization of information by this special group of users. Certain skills are required in order to utilize information sources provided in alternative format and information literacy skills have been found to be related to information resources utilisation. This research therefore seeks to investigate the information literacy skills of the visually

impaired, alternative format availability and utilisation of information sources in selected secondary school libraries in South-western, Nigeria.

Objectives of the Study

The general objective of this study is to investigate information literacy skills, alternative formats availability and information resources utilization by visually impaired students in South-western, Nigeria. The specific objectives are to:

1. Investigate the level of Information literacy skills of the visually impaired persons.
2. Determine the availability of alternative format to the persons with visual impairment in the selected secondary schools.
3. Examine the frequency of use of information resources by persons with visual impairment in the selected secondary schools.
4. Investigate whether there is any significant relationship between information literacy skills of persons with visual impairment and information resources utilization in the selected secondary schools.
5. Investigate whether there is any significant relationship between alternative formal availability and information resources utilisation of persons with visual impairment in the selected secondary schools.

Research Questions

The research questions for this study are:

1. What is the level of Information literacy skills of the visually impaired persons in the selected secondary schools?
2. How available is the alternative format to the persons with visual impairment in the selected secondary schools?
3. What is the frequency of use of information resources by persons with visual impairment in the selected secondary schools?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

Ho₁: there is no significant relationship between information literacy skills of persons with visual impairment and information resources utilization in the selected secondary schools.

Ho₂: there is no significant relationship between alternative format availability and information resources utilisation of persons with visual impairment in the selected secondary schools

METHODOLOGY

This study employed survey research design method. The researcher intended to use the survey method to determine information literacy skills, alternative availability and utilization of information sources by the visually impaired persons in the selected secondary schools for the study. The population of this study comprises secondary school students with visual impairment (i.e. the blind and partially sighted) who are users of information materials in alternative format in secondary schools libraries selected for the study in South-western Nigeria. The total population of the study is 164 respondents. Eight secondary schools (8)

catering for the needs of the visually impaired students located in the south-western geopolitical zone of Nigeria were selected for this study.

Total enumeration sampling technique was adopted for this study. This technique is useful because it is not too large for the budget of the researcher and it will also afford the researcher to collect data from all the elements in the population and thereby ensure full participation of all the secondary school students with visual impairment in South-West, Nigeria.

The instrument used in collecting data for this study is a combination of a self-constructed and adopted questionnaire tagged 'Persons with visual impairment questionnaire' (PWVIQ). The questionnaire was used to elicit responses from the visually impaired students of the secondary schools included in the study. The instrument elicited quantitative data on the variables of the study i.e. information literacy skills, alternative format availability and information sources utilization. The instrument is divided into five sections A, B, C, D and E.

Section A comprises demographic information of the visually impaired students such as age, gender, type of visual impairment, onset of visual impairment. Section B deals with information literacy skills of the visually impaired students. This section adapted a 40-item information literacy skill scale developed by Kurbanoglu, Akkoyunlu and Umay (2004). The items in the scale request the respondents to indicate their level of information literacy skills. The items of the questionnaire centred on the main categories of information literacy skills such as defining the need for information; searching strategy; locating and accessing the information resources; assessing and comprehending the information contained, interpreting; synthesising and using the information; communicating the information and finally evaluating the information sourced. The statement in the scale are rated on five-point Likert Scale: Always True (5), Often True (4); Usually True (3); Occasionally true (2) Not true (1) Section C elicits information on the availability of alternative format of information to the visually impaired persons. Section D elicits information relating to information sources utilization by persons with visual impairment. Through pre-test, the reliability of the instruments was determined through the use of Cronbach Alpha reliability test. A reliability coefficient for the Visually Impaired Persons Questionnaire (VIPQ) was found to be 0.65 for the section for information literacy skills of visually impaired, 0.75 for alternative formats availability and 0.81 for utilization of information resources. Data gathered from the research instruments were analyzed using appropriate statistical tools such as frequency counts, percentages, mean, standard deviation for testing demographic data and research questions while Pearson product Moment correlation was be used to test the stated.

RESULTS AND DISCUSSION

Research Question 1: What is the level of Information literacy skills of the visually impaired persons in the selected libraries?

Table 1: Level of Information literacy skills of the visually impaired persons

	Mean	Std.dev
I can classify the information	4.13	6.022
I can criticize the quality of my information seeking process and its products	3.85	1.669
I can define the information that I need	3.81	1.741
I can determine the level appropriate to communicate with the audience	3.69	1.722
I can recognize interrelationships among concepts	3.63	1.738
I can determine the reliability of the information sources	3.62	1.756
I can recognize errors in logic	3.62	1.720

I can learn from my information problem solving experience and improve my information literacy skill	3.61	1.728
I can make an oral presentation	3.60	1.768
I can paraphrase the information	3.51	1.803
I can choose alternative format of information appropriately	3.50	1.724
I can differentiate between fact and opinion	3.40	1.768
I can write a research paper	3.38	1.817
I can identify points of agreement and disagreement among sources	3.33	1.854
I can select information most appropriate to the information need	3.21	1.873
I can evaluate information critically	3.19	1.900
I can determine the content and form the parts (introduction, conclusion) of a presentation (written, oral)	3.09	1.845
I can make citations and use quotations within the text	2.97	1.788
I can synthesize newly gathered information with previous information	2.80	1.868
I can synthesize and summarize information gathered from different Sources	2.72	1.855
I can interpret the visual information (i.e. graphs, tables, diagrams)	2.69	1.821
I can evaluate www sources	2.65	1.852
I can use many resources at the same time to make a research	2.63	1.752
I can create bibliographic records and organize the bibliography	2.62	1.767
I can prepare a bibliography	2.56	1.763
I can create bibliographic records for different kinds of materials (i.e. books, articles, web pages)	2.53	1.746
I can use electronic information sources	2.31	1.722
I can use different kinds of print sources (such as books, periodicals)	2.24	1.644
I can identify a variety of potential sources of information	2.21	1.519
I can decide where and how to find the information I need	2.12	1.612
I can initiate search strategies by using keywords and Boolean logic	2.06	1.502
I can limit search strategies by subject, language and date	1.96	1.398
I can use different kinds (types) of libraries	1.90	1.342
I can locate information sources in the library	1.89	1.341
I can locate resources in the library using the library catalogue	1.87	1.320
I can Use/search indexes and electronic databases	1.84	1.331
I can use different kinds of library catalogues (i.e. card catalogues, online catalogues)	1.81	1.285
I can use library catalogue	1.80	1.282
I can use internet search tools (such as search engines, directories, etc.	1.77	1.313
I can interpret information on the library catalogue	1.68	1.155
Overall Mean	54.20	

The respondents were asked to indicate what constitute their level of information literacy skills. The result showed that persons with visual impairment can: Classify information (\bar{x} = 4.13; SD = 6.02), criticize the quality of my information seeking process and its products (\bar{x} = 3.85; SD = 1.66); define the needed information (\bar{x} = 3.81; SD = 1.74); determine the level appropriate to communicate with the audience (\bar{x} = 3.69; SD = 1.72); recognize interrelationships among concepts (\bar{x} = 3.63; SD = 1.73); determine the reliability of the information sources (\bar{x} = 3.62; SD = 1.75); recognize errors in logic (\bar{x} = 3.62; SD = 1.72); learn from information problem solving experience and improve information literacy skill

(\bar{x} = 3.61; SD = 1.72); make an oral presentation (\bar{x} = 3.60; SD = 1.76); paraphrase the information; paraphrase the information (\bar{x} = 3.51; SD = 1.80); choose alternative format of information appropriately (\bar{x} = 3.50; SD = 1.72); differentiate between fact and opinion (\bar{x} = 3.40; SD = 1.76); write a research paper (\bar{x} = 3.38; SD = 1.81); identify points of agreement and disagreement among sources (\bar{x} = 3.38; SD = 1.81); select information most appropriate to the information need (\bar{x} = 3.33; SD = 1.85).

Test of norm was conducted to determine the level of level of Information literacy skills of the visually impaired persons in the selected secondary schools and the results showed that scale 1-66 is low, 67-133 is moderate and scale 134-200 was high. The overall mean for the information literacy skills \bar{x} = 54.20 which falls within the scale 1-66 is an indication that, information literacy skills of visually impaired persons was low. Hence, the results showed that the visually impaired students in the selected secondary schools displayed low level of information literacy skills.

Research Question 2: How available is the alternative format to the persons with visual impairment in the selected secondary schools?

Table 2: Availability of alternative format to the persons with visual impairment

Alternative Format	Readily Available	Available	Not Readily Available	Not Available	Mean	Standard Deviation
Braille Books	84 (52.2%)	5(3.1%)	22(13.8%)	48(30.2%)	2.97	1.35
Large Print Books/Serials	69(43.3%)	1(.6%)	26(16.4%)	63(39.6%)	2.48	1.38
Talking Books (tape, CD, DVD)	42(26.4%)	1(.6%)	65(40.9%)	51(32.1%)	2.21	1.16
Talking Magazines/Journals/ Newspapers	-----	-----	64(40.3%)	53(33.3%)	2.17	1.13
DAISY Reading Software/ Materials	-----	-----	-----	70(44.0%)	1.72	.81
Recorded Educational Radio/ TV Programmes	19(11.9%)	-----	48(30.2%)	92(57.9%)	1.66	.97
Tactile Picture Books	16(10.1%)	-----	47(29.6%)	96(60.4%)	1.60	.92
Computer with text-to-speech software	-----	10(6.3%)	62(39.0%)	54(34.0%)	2.14	1.10

The table shows the availability of alternative format of information to the persons with visual impairment in the selected secondary schools libraries. The result indicated that Braille books 84(52.2%) and large print books/serial 69 (43.3%) were the readily available alternative format of information to students with visual impairment.

However, the following are not readily available: computer with text-to-speech software 62(39.0%); talking books (tape, CD, DVD) 65(40.9%); talking magazines/journals/newspapers 64(40.3%); DAISY reading software/ materials 75(47.2%); recorded educational radio/ TV programmes 92(57.9%) and tactile picture books 96(60.4%).

Research Question 3: What is the frequency of use of information resources by persons with visual impairment in the selected secondary schools?

Table 3: Frequency of use of information resources by persons with visual impairment

Information resources	Daily	Weekly	Twice Weekly	Fortnightly	Monthly	Never
Books	116(73%)	7(4.4%)	-----	12(7.5%)	20(12.6%)	4(2.5%)
Internet sources	62(39.0%)	5(3.1%)	2(1.3%)	17(10.7%)	20(12.6%)	53(33.3%)
Magazines	-----	-----	-----	-----	-----	63(39.6%)
Reference sources	-----	-----	-----	-----	-----	90(56.6%)
Encyclopaedia	-----	-----	-----	-----	-----	92(57.9%)
Journals	-----	-----	-----	-----	-----	94(59.1%)
Databases	-----	-----	-----	-----	-----	97(61.0%)
E-books	-----	-----	-----	-----	-----	72(45.3%)

The result indicates the frequency of use of information resources by persons with visual impairment. From the results, books 116(73%) and internet sources 62(39.0%) constitute the most frequently used information resources by persons with visual impairment.

However, magazines 63(39.6%); reference sources 90(56.6%); encyclopaedia 92(57.9%); journals 94(59.1%); databases 97(61.0%) and e-books 72(45.3%) were not used by the visually impaired students. By implication, the visually impaired students are not fully maximising the varying degrees of information resources and this might be due to the non-conversion of such resources to the format appealing to them i.e alternative format.

Ho₁: There is no significant relationship between information literacy skills of persons with visual impairment and information resources utilization in the selected secondary schools.

Table 4: Correlation between information literacy skills of persons with visual impairment and information resources utilization in the selected secondary schools

	\bar{X}	Std. Dev	information literacy skills	Information resources utilization
Pearson correlation			1	.248*
Information literacy skills Sig (2 - tailed)	52.94	16.35		.002
N			159	159
Pearson correlation			.248*	1
Information resources utilization Sig (2-tailed)	34.89	14.42	.002	
N			159	159

* Correlation is significant at 0.05 level (2-tailed).

Decision: Significant

The information literacy skills of persons with visual impairment in the selected secondary schools were correlated with information resources utilization. The result showed a Pearson Correlation Coefficient $r = 0.248$; $p < 0.05$ which means that the hypothesis which state that there is no significant relationship between information literacy skills of persons with visual impairment and information resources utilization is therefore rejected. The information literacy skills of persons with visual impairment have significant relationship with information resources utilization in the selected secondary schools.

Ho₂: There is no significant relationship between alternative format availability and information resources utilisation of persons with visual impairment in the selected secondary schools

Table 5: Correlation between alternative format availability and information resources utilisation of persons with visual impairment in the selected secondary schools

	\bar{X}	Std. Dev	Alternative format availability	Information resources utilization
Pearson correlation Alternative format availability Sig (2 - tailed) N	52.94	16.35	1 159	.068* .004 159
Pearson correlation Information resources utilization Sig (2-tailed) N	34.89	14.42	.068* .000 159	1 159

* Correlation is significant at 0.01 level (2-tailed).

Decision: Significant

Alternative format availability was correlated with alternative format utilization. The result showed a Pearson Correlation Coefficient $r = 0.068$; $p < 0.01$ which means that there is significant relationship between alternative format availability and information resources utilisation of persons with visual impairment in the selected secondary schools. The hypothesis is therefore rejected. Hence, alternative format availability has relationship with the utilization of information resources by persons with visual impairment in the selected secondary schools.

Discussion of findings

The study revealed that the level of information literacy skills of the visually impaired students was extremely low. From the result, the visually impaired students exercised their level of information literacy skills in classifying information, criticizing the quality of my information seeking process and its products; defining the needed information; determining the level appropriate to communicate with the audience; recognizing interrelationships among; determining the reliability of the information sources; recognizing errors in logic; learning from information problem solving experience and improve information literacy skill; making an oral presentation; paraphrasing the information; paraphrasing the information; choosing alternative format of information appropriately; differentiating between fact and opinion; writing a research paper; identifying points of agreement and disagreement among sources and selecting information most appropriate to the information need.

Although the components of information literacy skills used in this study were forty out of which they were competent of seventeen. Their information literacy skills were limited to the factors that has nothing to do with sightedness and as such they are not fully grounded in all

the elements of information literacy skill scale developed by Kurbanoglu, Akkoyunlu and Umay (2004).

The result on the availability of alternative format for secondary school students with visual impairment in the libraries indicate that materials such as Braille books and large print books/serial were the readily available alternative format of information to students with visual impairment. This scenario is affecting both the developing and developed countries of the world as reported by Vitzansky (1996) and Bruce and Baker (2001). This finding negate the recommendation of Eskay and Chima, (2013) that librarians have a moral obligation to make information available to all categories of users regardless of their gender, age, race, political affiliation or disability. All library resources should be available in formats accessible by persons of all ages with varying abilities. These materials must not be restricted by any presuppositions about information needs, interests, or capacity for understanding (Ponera, 2015).

The result record acute shortage of variety of alternate format of information expected to be made available to the visually impaired students in order to ensure equality of access to information with their sighted counterparts. Braille materials form the bulk of materials available in the libraries surveyed. However, the students complained that the Braille books made available on shelves were outdated and as such not relevant to what is desirous.

Computer with text-to-speech; talking books (tape, CD, DVD); talking magazines/journals/newspapers; DAISY reading software/ materials; recorded educational radio/ TV programmes and tactile picture books were practically non-existent in many of the libraries. Many of the respondents (the partially sighted) complained that they hardly came across large print materials for use. In summary, information materials available in the libraries selected for this study are inadequate to meet the information needs of the visually impaired users. This result is supported by Agbaje (1996) who opined that information materials to the visually impaired in Nigeria are inadequately made available to the users.

Braille materials available in the secondary schools surveyed were not being used by the students regularly because the materials needed by the students were sourced through private arrangement by the students and support from their parents. These materials are available inadequate quantity for the users. This finding is supported by Agbaje (1996).

The result found out that books and internet sources were the most frequently used information resources by persons with visual impairment. However, magazines; computer; reference sources journals; databases and e-books were not used by the visually impaired students. The visually impaired students depend on the mercy of their counterparts to read books to their hearing since there is an acute shortage of alternative format. The students equally gained access internet frequently through sophisticated mobile phones made available to them by their parents.

The reason for books and internet being the most utilized information resources in this study could be because alternative formats made available are not sufficient. Although the visually impaired students prefer audio books to braille and other alternate format depending on the onset of the impairment. Non-availability of theses format made them to rely on the charity of their peers for reading books to their hearing. Also many of them have mobile phones with text-to-speech software acquired for them by their parents with which they access internet for information. The finding disagree with the submission of a study on the use of alternative formats by Canadian college students with print disabilities (Anne, 2000) who revealed that

56% of the students use tape recording frequently, 31% use large prints and 19% use braille frequently.

The finding shows that the information literacy skills of persons with visual impairment have significant relationship with information resources utilization in the selected libraries. Information literacy skills are a skill expected of everyone to possess in this present age. This corroborate the submission of Ponera (2015) information literacy skills are the key factor for information access and utilization among students with disabilities because information literacy provides students with necessary skills for accessing, evaluating, and using information in problem solving. In addition, information literacy helps students to become skilful information users and lifelong learners. The result indicates that the students are not fully integrated into all the components of information literacy skills and this could have negative effects on the utilization of information resources.

The study revealed that alternative format availability has relationship with the utilization of information resources by persons with visual impairment in the selected libraries. This finding agrees with the findings of Vitzansky (1994) in his study of visually impaired users of the Danish National Library and Owino (1995) who reported that availability of information materials for persons with visual impairment in Kenya was hampered by barriers that limit utilization of alternative materials. Inadequate availability of information material in alternative format is an indication for low utilization of information resources.

It could be deduced from this finding that utilization of information resources by students with visual impairment in the libraries studied anchor on the availability of alternative format. It is clear that people can only utilize what is available, by implication; utilization issue cannot surface in the absence of availability. Atinmo (2002) reported of inadequate information materials in alternative format for persons with visual impairment in Nigeria. Agbaje (1996) envisaged that visually impaired library users as it were, do not derive appreciable measure of satisfaction from libraries. The finding is supported by ALA (2009) suggestion that the library should offer different, necessary modes of access to the same content using equipment, electronics, or software. All information resources provided directly or indirectly by the library, regardless of technology, format, or method of delivery, should be readily, equally and equitably accessible to all library users. Libraries should make every effort to support the needs of their users with disabilities and when necessary, should seek financial or other assistance to do so.

Conclusions

Based on the findings of this study, the following conclusions were drawn.

The result showed that the level of availability of information materials in alternative format for persons with visual impairment in the selected schools was abysmally low. Even the little available constitute out-of-date information resources; they were of little or no use to the visually impaired students. This inadequacy cannot ensure a sustained information service delivery to the visually impaired student and also debar them of opportunity to meet up with their sighted colleagues in terms of gaining full access to information.

The information literacy skill of the visually impaired students was low and this cannot be unconnected to the fact that the interest of these people are not catered for in the framework design of information literacy skills. It is important to note that despite the fact that right of access to information is a fundamental right to any human being including those with

disabilities, still most libraries are facing challenges in serving students with disabilities and this could be attributed to low level of information literacy skills.

However, the visually impaired students heavily rely on the charity of their friends in utilising conventional information such as books due to dearth of alternative format. The parents of the students who could afford text-to-speech software and mobile phones such as blackberry, Androids, iphone are also helping the students to gain access to information. The students resulted into independent acquisition of alternative format of information when the institution failed in discharging their expected duties of acquiring information for all categories of information users.

Recommendations

Sequel to the findings of this study, the following recommendations are hereby given.

- i. Understanding of information materials needed by persons with visual impairment should be a motivating factor for transcribing conventional information into alternative format by information providers
- ii. The collection development librarians of schools catering for the visually impaired students should ensure balance collection by integrating into their stock the alternative format of information for this special group
- iii. Efforts should be made by school administrator and government to galvanize activity that can improve the information literacy skills of the visually impaired. There is a need to incorporate this concept of information literacy skills into their curriculum so as to ensure long-life learning and utilization of information resources
- iv. Libraries providing information services to persons with visual impairment should collaborate and share resources in order to increase utilization of alternative formats.
- v. Secondary schools with visual impaired students should equip their libraries with state-of-the-art alternative formats such as which will adequately meet their information
- vi. Equally, government should deem it fit to employ information professionals trained in transcription of information resources to schools in order to ensure equality in access to information resources by the visually impaired students

REFERENCES

- Adeoye, A. 1996. Survey of blindness in south-western Nigeria. *Tropical Medicine and International Health* 1, 672-676.
- Adetoro, A. A. 2009. Relationship among reading interest, information materials availability and alternative format utilisation by persons with visual impairment in selected libraries in Southwestern Nigeria. Ph.D Thesis, Department of Library, Archival and information studies, University of Ibadan. xiv+132pp.
- Agbaje, S A. 1996. Access to and retrieval of library resources by the blind in selected higher institutions in Nigeria. *Current Researches on Special Education in Nigeria*. T.C. Obani Ed. Oyo: FCE Special. 188 – 195.
- American Library Association. 2009. Introduction to Information Literacy. Retrieved online on March 15, 2015 <<http://www.ala.org/ala/acrl/acrlissues/acrinfolit/infolitoverview/intotoinfolit/introinfolit.htm>
- Anne, M. 2000. Library Services to Canadian students. Retrieved online 26th March., 2015 from EFFP/<http://www.langara.bc.ca/cba.html>.
- Arditi, A.; Rosenthal, B. 1998. *Developing an objective definition of visual impairment*. Vision '96: Proceedings of the International Low Vision Conference. Madrid, Spain: ONCE. 331–334.
- Atinmo, M.I. 2002. Integrating people with special needs into the information world: strategies for accomplishment. T. A. Adedaja and T. C. Obani eds. *Social issues, communication and special education*. Ibadan: Symphony Publishers.
- Babalola, Y. T., and Y. Haliso. 2011. “Library and Information Services to the Visually Impaired-The Role of Academic Libraries.” *Canadian Social Science* 7.1: 140-147.
- Brazier, H. 2003. Marketing Reading: a Touching Experience. *Paper presented at the World Library and Information congress: 69th IFLA General Conference and Council*. Berlin. 1-9 August.
- Bruce, I and Baker, M. 2001. Access to Written Information and the View of 1000 people with Sight Problems London: RNIB.
- Brunson, M. 2005. Providers of Leisure Reading Materials. Retrieve 31st Nov., 2005 from <http://www.acb.org/material>.
- Eskay, Michael and Chima, J. N. 2013. Library and Information Service Delivery for the Blind and Physically Challenged in University of Nigeria Nsukka Library. *European Academic Research* 1.5: 625-635
- Farber, M.D. 2003. Estimation of prevalence and incidence rates and cause of blindness in Israel. *Ophthalmic Epidemiology* 10: 267-277.
- Gatz, I. 2003. What do blind people want from talking book? Paper presented at the 69th IFLA general conference and council Berlin 1-9 August 2003. <http://www.ifla.org/contacts/074-E>
- Gilbert, C. & Foster, A. 2001. Childhood blindness in the context of Vision 2020: the right to sight. *Bulletin of the World Health Organization* 79: 227-232.

- Gilbert, C. 2001. New issues in childhood blindness. *Community Eye Health Journal* 14: 53-56.
- Jayaprakash, A. and Gupta, V.U. 2005. Information Literacy: Need to Promote the Use of Digital Information Services in Digital Era. In R. Chandra edited 'Libraries, Information Literacy and Lifelong Learning. Indian Library Association, Delhi. 292-301.
- Kurbanoglu, S. Serap, Akkoyunlu, Buket and Umay, Aysun (2004) Developing the information literacy self-efficacy scale. *Journal of Documentation*, 62(4), 730-743
- National Health Service. 2006. Visual impairment overview introduction. Retrieved 18th, February, 2015 from <http://www.hhs.uk/conditions/visual-impairment/pages/introduction.aspx?hl=pages/what...>
- National Library of Canada 1996. The accessible Canadian library II: A resource tool for libraries serving person with disabilities. Ottawa. 7th of April, 2015 from [http://www.Canada.justic.gc.ca/stable/law/chapter cc42html](http://www.Canada.justic.gc.ca/stable/law/chapter%20cc42.html).
- Nielson, G.S. & Irvall, B. 2005. *Access to libraries checklist: A practical tool*. Retrieved April 16, 2015 from <http://www.ifla.org/IV/ifla?programme.htm>
- Obani, T.C. 2002. Developing Library and Information Policy for the Visually Impaired in Nigeria. *Journal of the Association for Visually Impaired*. 1, 2: pp.1-7.
- Owen, V. 2000. Library provision for visually impaired in the UK and Canada: National services and international cooperation *Alexandria*, 12.12:71-80.
- Owino, O. 1991. *Reading materials for the visually handicapped in Kenya: Availability and Accessibility*. Nairobi: Kenya Poly.
- Pansida, C. 1991. *Library services for the visually handicapped in Thailand*. A paper presented at the IFLA Pre-Conference of Literacy for the Visually Handicapped in Developing Countries, Dehardun, India, 25-27 August 1992.
- Ponera, J.M 2015. Libraries and Students With Disabilities: Reflections From The Moshi Co-Operative University Library Researchjournal*li's Journal of Education* 3.3:
- Royal National Institute for the Blind (1998) *The Internet and How to Access It*. Peterborough: RNIB. Cited by Berry, J. (1999) "Apart or a part?: Access to the Internet by visually impaired and blind people, with particular emphasis on assistive enabling technology and user perceptions". *Information Technology and Disabilities*, 6.3: 1-16. Available online at <http://www.rit.edu/~easi/itd/itdv06n3/article2.htm>
- Sasikala, C. & Dhanraju V. 2011. Assessment of Information Literacy Skills among Science Students of Andhra University. *Library Philosophy and Practice*
- Saumure, K. & Given, L. M. 2004. Digitally enhanced? An examination of the information behaviours of visually impaired post-secondary students. *The Canadian Journal of Information and Library Science*, 28, 2, 25-42.
- Veal, D., and Maj S. P. 2010. A Graphical User Interface for the Visually Impaired – an Evaluation. *Journal of Modern Applied Science* 4.12: 83-89.

- Vitzansky, W. 1994. Library services to blind and print handicapped persons in Denmark: The Danish model. *Papers presented at the International conference for Visually Impaired persons. Nottingham 15-18 July.*
- Vitzansky, W. 1996. The development of national strategies for library service for blind and print handicapped people. *Paper delivered at the 62nd IFLA General conference. August 25-31.* Retrieved 12 April., 2015 from <http://www.ifla.org/iv/66/conference/proceedings/papers>.
- World Health Organization 2009. "Prevention of Avoidable Blindness and Visual Impairment: Report by the Secretariat," Sixty-Second World Health Assembly, Provisional Agenda Item 12.3 (A62/7), Retrieved May 20, 2015 from http://apps.who.int/gb/ebwha/pdf_files/A62/A62_7-en.pdf.